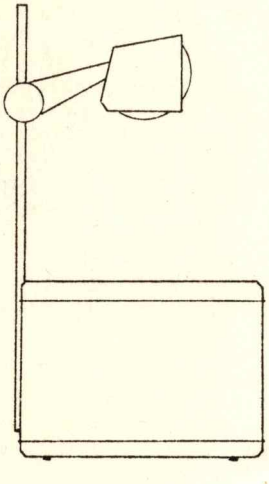
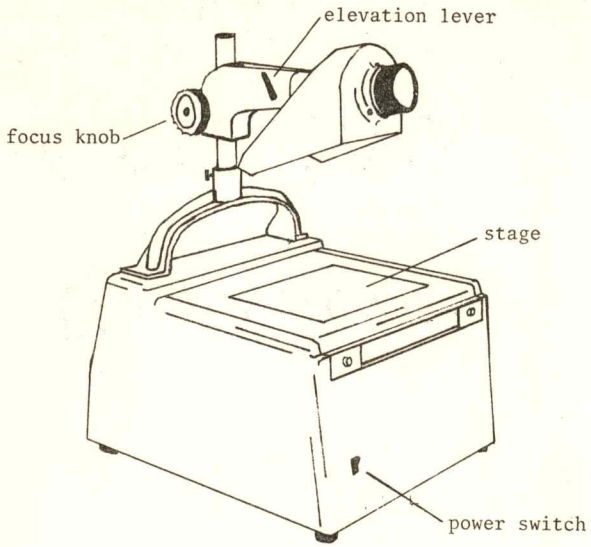
THE OVERHEAD PROJECTOR



AN
OPERATIONAL
GUIDE

CENTRE FOR INSTRUCTIONAL TECHNOLOGY
CONCORDIA UNIVERSITY
MONTREAL

PARABOLIC MIRROR PROJECTORS



MODELS

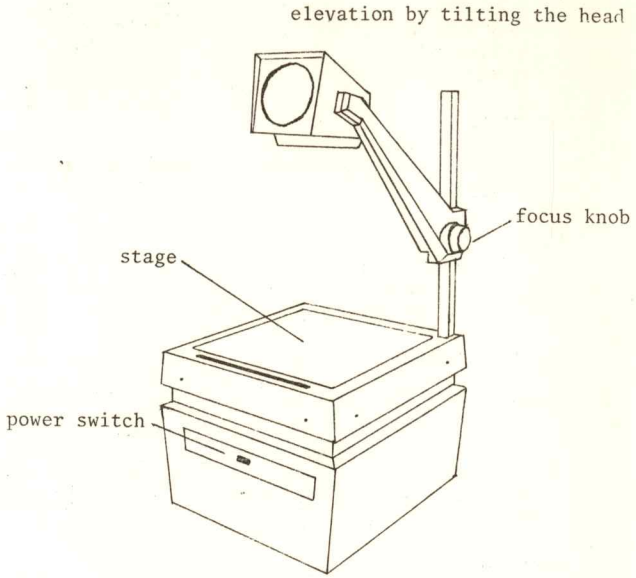
* Technifax Visucom - Blue fibreglass case
  - Focus - the focus knob moves the head assembly up and down the post.
  - Elevation - the elevation lever rotates the head and mirror assembly.
  - Stage - 10" wide and 8" high. The entire area is usable.
  - Projection Distance - 9' from lens to screen gives a 70" X 56" image.

* Transpaque - Green metal case
  - Focus - the focus knob moves the head assembly up and down the post.
  - Elevation - the elevation knob on the head moves the lens and head mirror.
  - Stage - 10" X 10". The entire area is usable but the corners are rounded.
  - Projection Distance - 9' from lens to screen gives a 70" X 70" image.

NOTE

* Acetate rolls cannot be used on these machines.

FRESNEL LENS PROJECTORS



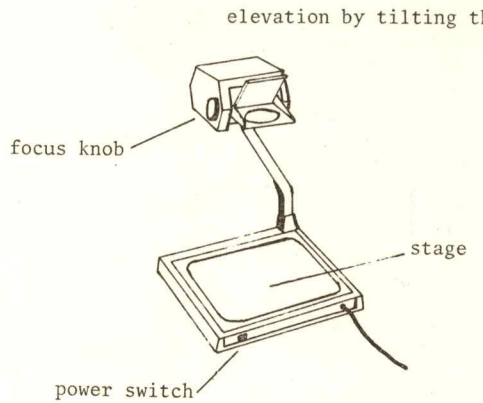
MODELS

* Bell and Howell 301 - Blue metal case with black top
  - Focus - the focus knob moves the head assembly up and down the post.
  - Elevation - there is no elevation knob;instead the head assembly tilts.
  - Stage - 10" X 10". The corners are rounded and good focus is only obtained over a 9" X 9" area.
  - Projection Distance - 9' from lens to screen gives a 72" X 72" image.

* Bell and Howell 362 - Blue metal case with silver top
  - Focus - the focus knob moves the head assembly up and down the post.
  - Elevation - there is no elevation knob;instead the head assembly tilts.
  - Stage - 10" X 10". The corners are rounded and good focus is only obtained over a 9" X 9" area.
  - Projection Distance - 6' from lens to screen gives a 68" X 68" image.

* Besler Porta-Scribe - Brown metal case
  - Focus - the focus knob moves the head assembly up and down the post.
  - Elevation - there is no elevation knob, the front lens of the head assembly tilts.
  - Stage - 10" X 10". The corners are rounded and good focus is only obtained over a 9" X 9" area.
  - Projection Distance - 9' from lens to screen gives a 72" X 72" image.

PORTABLE FRESNEL PROJECTORS



MODELS

* 3M 88
  - Focus - the focus knob moves the lens assembly up and down.
  - Elevation - there is no elevation knob;instead the head mirror tilts to give the desired elevation.
  - Stage - 10" X 10". The corners are rounded and good focus is only obtained over a 9" X 9" area.
  - Projection Distance - 6' from lens to screen gives a 68" X 68" image.

NOTES

* This projector does not have a forced cooling system and therefore cannot be used continuously.
* The stage platen is a replaceable item consisting of a mirror, a fresnel lens and a plastic work surface. This is a delicate optical assembly and great care should be taken to avoid any physical shock. Any alteration in the relative positions of these elements will cause severe distortion.
* Acetate rolls cannot be used on these machines.

FAULT CONDITIONS

* Transparency curls up and projector overheats
  - fan not running or failing to continue running after the machine is switched off
  - air intake obstructed
  - foreign object inside projector

* Image cut off or with a coloured fringe
  - optical system out of alignment
  - elevation beyond normal range

* Projector will not focus
  - missing or misaligned optical element
  - fresnel lens distorted
  - lid of machine not closed
  - focus control clutch slipping; head assembly will be difficult to move but can be moved manually up or down in such cases

* Projector will not elevate image
  - elevation control not moving mirror and head assembly correctly; this can be done manually.

* No light - fan revolves
  - lamp burned out
  - top lid not closed
  - power switch in the fan position, (some projectors have a three position power switch; the positions being: Off, Fan, Lamp.

* No light - no fan
  - faulty wall socket
  - faulty power cord

PLEASE DON'T

* write directly on the glass stage
* switch the machine off by unplugging it; this prevents proper cooling of the machine.
* touch the mirror - (this type of mirror is easily damaged)
* move the projector while the lamp is on - (the filament is very delicate when hot)
* touch the lamp envelope - (in some machinery quartz iodide lamps are used and acid on the bare hand will cause the quartz to chemically break down)

IN CASE OF DIFFICULTY

* Use the intercom telephone in the classroom or call (879) 4000

MATERIALS AVAILABLE FOR OVERHEAD PROJECTORS

* Pens
  - permanent alcohol-based in blue, black, green and red
  - water-soluble in blue, black, green and red

* Acetates
  - 8" X 10" plain sheets
  - 10" wide rolls for Besler and Bell & Howell projectors

* Transparencies
  - 8" X 10" sheets for use in thermofax machines
  - 8" X 10" sheets for use in 3M 209 machine
  - 8" X 10" sheets for use in Xerox machine

* Copying Service
  - Transparency copies of suitable original material can be made at any of the C.I.T. depots on a while you wait basis. Most black and white and half tone materials can be copied directly from flat sheets, books and magazines. C.I.T. staff will be able to advise you as to the suitability of your original material.

* Prepared transparencies
  - Special transparencies such as "overlays" can be prepared by the C.I.T. graphics department.

NOTES:

* For visucom projectors the 8" X 10" sheets should be used with their greater dimension horizontal.
* Be careful to replace the top on projector pens immediately after use; the heat from the lamp dries the tip out.
* A cocktail stirrer makes a good pointer.